

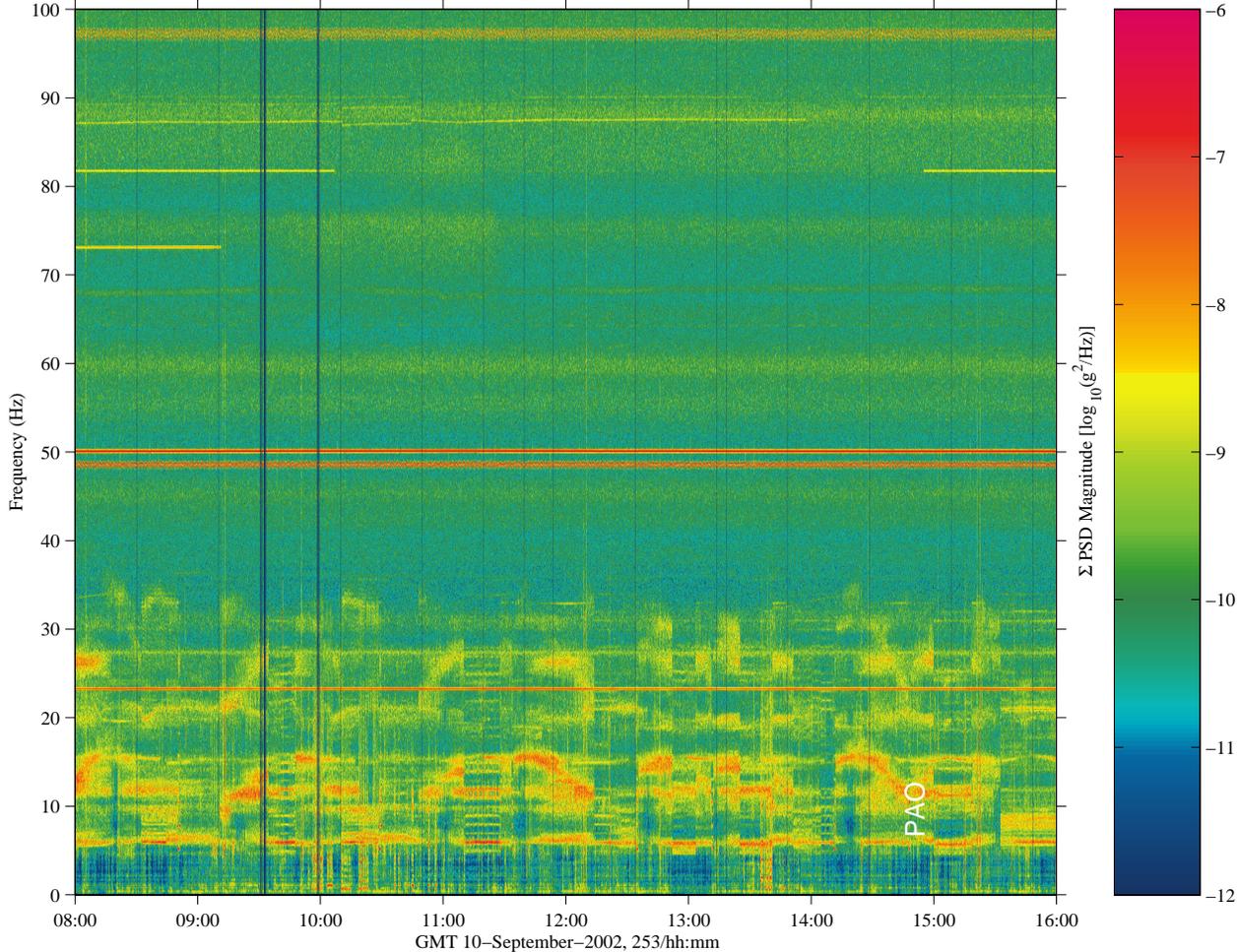
# Public Affairs Office (PAO) Event QUALIFY

sams2, 121f02 at LAB1O2, ER1, Drawer 1:[128.73 -23.53 144.15]  
250.0 sa/sec (100.00 Hz)  
 $\Delta f = 0.122$  Hz, Nfft = 2048  
Temp. Res. = 8.192 sec, No = 0

SAMS 121f02

Start GMT 10-September-2002, 253/08:00:00

Increment: 5, Flight: UF2  
Sum  
Hanning, k = 3483  
Span = 8.00 hours

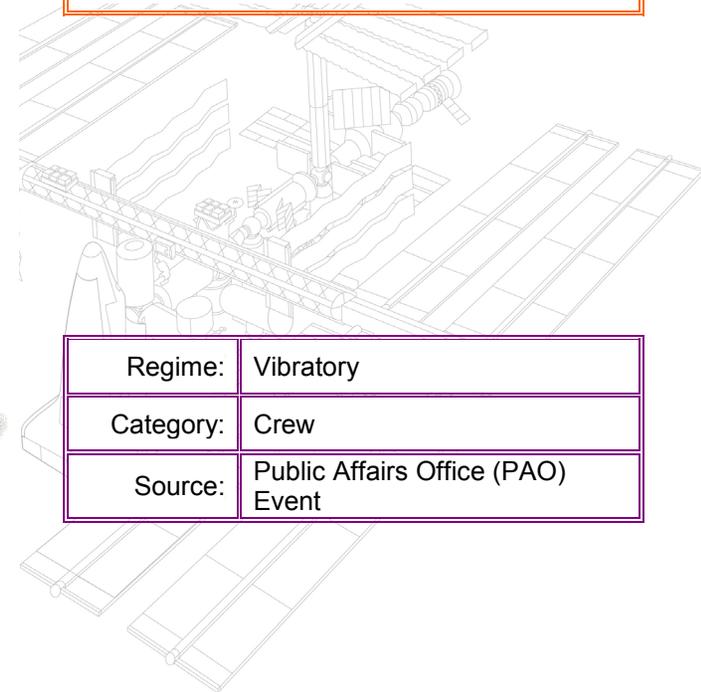


from: t:\pub\padr, \$Name: pop3\_06-17-2002 \$, 24-Jun-2002 06:09:18.383

Data Description	
Sensor	121f02 250.0 sa/sec (100.00 Hz)
Location	LAB1O2, ER1, Drawer 1
Inc/Flight	Increment: 5, Flight: UF2
Plot Type	spectrogram

### Notes:

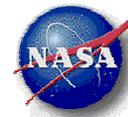
For a microgravity environment that mimics crew sleep, one can consider PAO events that occupy the entire crew (note that some PAO events occupy only part of the crew). These events typically last at least 10 minutes or so with the crew gathered in front of a video camera participating in an interview. During this time the crew is usually quite still, but there are times when they demonstrate various things that require them to push-off or otherwise apply a force to vehicle structure. The figure here shows the subtle contrast between nominal activity and all 3 crew participating in a PAO event from about 14:45 to about 15:00. Like crew sleep the difference lies primarily below about 6 Hz.



Regime:	Vibratory
Category:	Crew
Source:	Public Affairs Office (PAO) Event



Microgravity Science Division



Glenn Research Center

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sams2, 121f02 at LAB1O2, ER1, Drawer 1:[128.73 -23.53 144.15]

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$\Delta f = 0.122$  Hz, Nfft = 2048

Temp. Res. = 8.192 sec, No = 0

PAO Event,  $0 < f < 6$  Hz

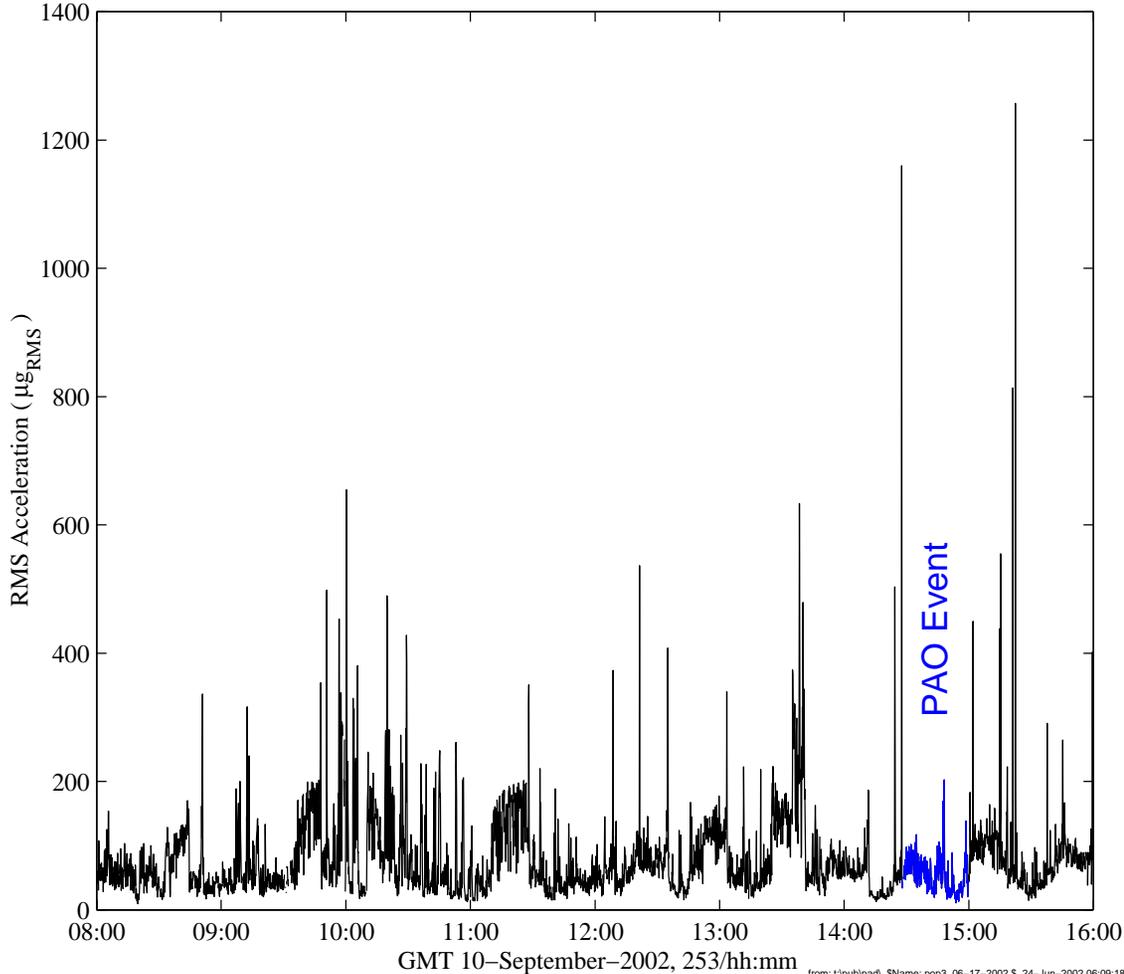
Start GMT 10-September-2002, 253/08:00:00

Increment: 5, Flight: UF2

Sum

Hanning, k = 3483

Span = 8.00 hours



Data Description	
Sensor	121f02 250.0 sa/sec (100.00 Hz)
Location	LAB1O2, ER1, Drawer 1
Inc/Flight	Increment: 5, Flight: UF2
Plot Type	interval RMS

**Notes:**

This figure shows that the RMS acceleration values below 6 Hz during the PAO event are noticeably smaller than the rest of this 8-hour period. The RMS levels are typically about midway between the crew sleep and crew wake levels. Statistics gathered for this time frame show:

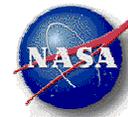
PAO Event median: 49.9  $\mu\text{g}_{\text{RMS}}$

Non-PAO median: 61.9  $\mu\text{g}_{\text{RMS}}$

Note that PAO durations (10 minutes or more) may be enough time for investigators to be opportunistic about scheduling certain autonomous or ground-commanded aspects of their experiment to be performed during this time, particularly for those sensitive below 6 Hz.



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